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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,117	11/12/2003	Malgorzata Bugajski	BECKER-1005	7669
7733	7590	05/18/2006	EXAMINER	
WALKER & JOCKE, L.P.A. 231 SOUTH BROADWAY STREET MEDINA, OH 44256			SAMPLE, DAVID R	
			ART UNIT	PAPER NUMBER
			1755	
DATE MAILED: 05/18/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/712,117

Applicant(s)

BUGAJSKI ET AL.

Examiner

David Sample

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on 03 March 2006.

2a) ☐ This action is **FINAL**.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 1-3, 5-18 and 20 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-3 and 5-18 is/are rejected.

7) ☒ Claim(s) 1 and 17 is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some \* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

Any rejections and/or objections, made in the previous Office Action, and not repeated below, are hereby withdrawn.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### *Claim Objections*

Claims 1 and 17 are objected to because of the following informalities:

If the claims are to be internally consistent, it appears that 1.2.3 and 1.2.4 should be 1.3 and 1.4.

In claim 17, "1.21" should be -- 1.2.1 --.

Appropriate correction is required.

#### *Claim Rejections - 35 USC § 112*

Claims 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 employs "consisting of" language which closes the claim to additional ingredients. Claim 15 states that the additional components  $\text{Al}_2\text{O}_3$  or  $\text{MgO}$  may be added to the refractory. A claim which depends from a claim employing "consisting of" language cannot add additional ingredients. See MPEP 2111.03.

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***Claim Rejections - 35 USC § 102***

Claims 1-3, 5-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Rechter et al. (US 4,056,398).

Rechter et al. discloses a refractory composition having the following composition (see col. 2, lines 15-23):

$\frac{1}{2}$ inch by $\frac{1}{2}$ inch calcined bauxite	10.0	0-20
$\frac{1}{2}$ inch by fines calcined bauxite	39.0	30-65
- 325 mesh calcined alumina	31.0	20-45
- 100 mesh raw kyanite	10.0	0-15
- 200 mesh Western bentonite	1.6	1.2-3
75% phosphoric acid	7.0	3-12
- 325 mesh hydrated alumina	1.0	0-2
TSPP	0.4	0.2-1.5

Raw kyanite and bentonite are aluminosilicates and TSPP is tetrasodium pyrophosphate. See col. 1, lines 41-42 and the Dictionary of Ceramic Science and Engineering. These components along with the phosphoric acid correspond to component 1.2.1. The remaining ingredients fall into the category of refractory materials having a grain-size of less than 15 mm.

Raw kyanite decomposes at 1300°C to mullite and cristobalite, and these components melt at 1810°C and 1710°C, respectively. See the Dictionary of Ceramic Science and Engineering. Thus, the silicatic component of the reference forms a molten phase at a temperature of greater than 500°C.

The composition noted above has amounts of components that anticipate instant claims 1, 2, 5, 6, 12, 15 and 16.

As to claim 7, the kyanite and bentonite are -100 mesh, and -200 mesh, respectively. A 100 mesh size has openings of 0.149 mm and 200 mesh has openings of 0.074 mm. See Perry's

Chemical Engineering Handbook. Accordingly, the kyanite and the bentonite are less than 0.149 mm and 0.074 mm, which are both  $<0.3$  mm.

As to claim 8, kyanite and bentonite are aluminosilicates.

The properties of claims 9 and 10 are presumed to be inherent to the reference as the composition is identical to the presently claimed composition.

Claims 13, 14 and 18 read to apply only when a C-containing component is included in the refractory and are therefore rejected.

#### *Allowable Subject Matter*

Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art fails to disclose or suggest a method of hot repairing a metallurgical vessel by applying the composition of claim 1 in a sack onto the damaged site.

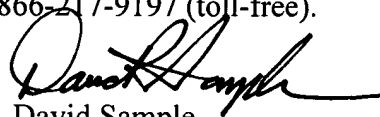
#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Sample whose telephone number is (571)272-1376. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (572)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Sample  
Primary Examiner  
Art Unit 1755